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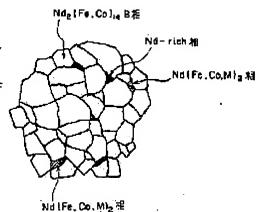
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(54) RARE EARTH MAGNET MATERIAL POWDER HAVING SUPERIOR MAGNETIC CHARACTERISTICS AND MANUFACTURE THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To provide rare earth magnet material powder of superior magnetic characteristics which has an R2(Fe, Co) 14B type intermetallic compound phase as a main phase.

14B type intermetallic compound phase as a main phase. SOLUTION: A recrystallization aggregate structure has, as a main phase, a structure in which recrystallized grains comprising a component composition, which has a rear earth element containing Y (hereinafter referred to as R), Fe, Co and B as main components, and which contains 0.001–5.0 atomic % of one or more species out of Zr, Si and Hf (hereinafter referred to as M), and an R2(Fe, Co)14B type intermetallic compound phase which employs a tetragonal structure whose recrystallized grain diameter is 0.05–50μm in average, adjoin one another, and contains R-rich phase in partial grain boundary. In R-(Fe, Co)-B-M based magnet material powder which comprises the structure, the recrystallization aggregate structure contains 0.1–1vol% of a R(Fe, Co, M)2 in volume percentage.



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